全国高等医药院校规划双语教材

Bailey & Love

# 外科学

# SHORT PRACTICE OF SURGERY

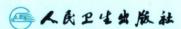
第24版

原著 R.C.G. Russell
Norman S. Williams
Christopher J.K. Bulstrode

主编 陈孝平 刘允怡 主审 裘法祖 吴孟超

第2卷

骨 科



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# 全国高等医药院校规划双语教材

# Bailey & Love 外科学

第24版

# 第2卷

# 骨 科 Orthopedics

编者 (按姓氏笔画排序) 刘光耀 朱立军 李 锋 陈安民 项 舟 翁习生 梁国穗 雷 霆 Bailey & Love's Short Practice of Surgery, 24th edition R.C.G. Russell, et al.

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《Bailey & Love's Short Practice of Surgery》是一部 经典外科学著作,由 1932 年的初版,经历了差不多四 分之三个世纪和 24 版的改变,现今已被确立为医学本 科生和受培训外科医师必读的基本教材,亦成为执业外 科医师案头必备的参考图书。在世界上差不多所有大型 医学图书馆里,都可以找到这本书。该书对外科界裨益 殊深,尤其在英联邦国家,其他外科书籍均难望其项 背。近年该书的销量,每版超过100万册,可见其受欢 迎的程度。

该书成功的因素很多。平均每3~4年推出新一版, 使该书的材料得到不断的更新和改善。严格选择编者和 作者,则使书中材料的广度和深度得到适当的平衡。由 于每位作者都是优秀的外科临床医师和资深医学教育 家,具备丰富的临床经验及教学和沟通技巧,因此他们 编成的这本书,能以临床诊断准确为基础,以合理的外 科原则为应用,以循证医学为基本,最终以有效治疗方 案为目标。在制定教材的过程中,由于需与英国四所不 同的皇家外科医学院的培训和考试委员局、考试官等各 方面合作,因而使该书不但直接提升了英国在过去四分之 三个世纪的整体外科水平。该书资料准确,内容广泛, 所以被大部分临床外科医师视为最权威的参考书。

本书有异于其他著名外科书籍之处,是其可读性很高。该书一直保持其优良传统,利用书页底部的空间简介外科重要人物,或讲述有趣和有历史价值的外科事件,以增加阅读时的趣味。每章节起始都注明学习目的,使读者更容易明白和掌握课本的内容。书内更有大量图表,帮助读者吸收课本中的知识。此外,更通过以普通字体印出必读材料,和以小字体印出较深入的辅助材料,方便不同程度的读者按自己的需要做选择性的阅读。

这次人民卫生出版社和Arnold出版社达成协议,把这本经典外科著作引进中国,对中国外科医疗教育和培训将有重大的改变和影响。我深信本书将有助于提高中国外科医疗教育和培训的整体水平。此外,这本书亦有助于把中国的外科带到世界外科的舞台上。其实,中国整体的外科水平很高,但中国外科界在世界上的影响力到目前为止仍然有限,其中一个主要原因是中国外科界语言沟通能力的问题。相信通过引进《Bailey & Love's Short Practice of Surgery》这本书,让中国人可以在学习外科的同时学习英语,中国的外科医师终有一天可以踏上世界的外科舞台。

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2006年6月25日

# 双语版前言

2001年,教育部下达文件要求各高校开展一定比例 的双语教学,这项导向性的规定促进了双语教学发展的 进程。卫生部教材办公室在全国数十所高校开展了相关 情况的调研、发现要求使用规范双语数材的呼声很高。 另一方面,我国目前的医学水平之所以不能被国外同行 认同,语言能力是一个很大的障碍。从外科学来看,我 国在很多领域都有突破性进展,然而到了国际会议上却 很少有发言的机会,最大的问题就是英语交流的能力较 低。鉴于上述原因,卫生部教材办公室决定引进《Bailey & Love's Short Practice of Surgery》(第24版) 这部英联 邦国家的经典外科著作,并组织有关专家根据国内《外 科学》教学实际情况进行重新编排,每章增加中文摘要, 对专业医学词汇附加中文注解,还配有英中文医学词汇 发音光盘,从而编成这套全国高等医药院校规划双语数 材《外科学》, 供全国高等学校或医药院校八年制(或 七年制) 医学生和研究生及青年外科医生使用、

需要说明的是: ①原版《Bailey & Love's Short Practice of Surgery》全书装订为一本,而双语版装订分为5卷: 第1卷为外科学基础,第2卷为骨科,第3卷为五官-头颈外科,胸心外科和内分泌外科,第4卷为神经外科、泌尿外科和血管外科,第5卷为腹部外科和

小儿外科,多数章节次序也作了调整,例如第2卷第26章,原版为第25章,等。②由于本书为原版书激光照排印刷,原版书中的错误不便改正,如第2卷第26章中图26.25应该有3幅图,但缺少图C,该章的图26.33照片与注解不符,等。③书中的计量单位、诊疗程序、药物名称及剂量等可能与国内标准不同,希望学生和年轻外科医生在学习过程中对上述问题予以注意,如有疑问,可参考卫生部全国高等医药院校五年制和八年制规划教材《外科学》。

总之,我们希望广大学生、研究生和年轻医生通过学习本教材去体会国外经典外科学教材的精髓和特点,掌握英语专业词汇并了解他们的英语表达和习惯用法,举一反三,触类旁通,在学习国外外科专业知识的同时,不断提高医学英语水平。

本书由裴法祖院士和吴孟超院士主审。在编写过程中,得到了前全国人大副委员长、著名泌尿外科学专家 吴阶平院士的热心支持和鼓励,香港特别行政区政府 教育统筹局局长、著名外科学专家李国章教授欣然为 本书作序。为此,我们对他们表示衷心的感谢!

编写双语规划教材《外科学》尚值初步尝试,如有 不当之处,尚请读者在使用本教材过程中给予指正!

**性孝** かたね

2006年8月6日

# **PREFACE**

Hamilton Bailey and McNeill Love would be honoured by the continuing success of their textbook, which has now been used all over the world for 70 years. To many of us, it has become an old friend – it inspired us in our student days, helped us pass our surgical exams and now keeps us right up to date when we are preparing examinations for the next generation of surgeons.

In this 24th edition, we have tried to stay with the guiding principles of a clear text that is fun to read. However, we have also worked hard to make the new edition comprehensive and highly relevant. All chapters now start with learning objectives. These statements are there to remind both trainees and examiners what we think are the main topics that need to be known (and tested) by a surgeon today. We have also introduced 'text boxes', which summarise the key facts and concepts contained in the surrounding text. These should prove useful for revision and should also provide notes on which trainees can plan concise and clear answers in examinations.

No surgical text can be sufficient on its own. It is there to complement the learning which is obtained from practising surgery on the ward, in out-patients and in the operating theatre.

There are some entirely new chapters. Professor Chiodini of the Institute of Tropical Diseases in London reminds us that parasitic disorders are not confined to the tropics. Peter Driscoll has summarised what a surgical trainee needs to do when looking after a surgical patient. This includes taking consent, writing an operating note and recording notes on daily ward rounds. These are topics which are becoming increasingly important to surgical examiners when checking that trainees are safe to practise.

The historical notes have been completely revised and greatly expanded by Dr Dickie Fairer. This is in response to feedback from our readers, who clearly share our pleasure in the rich history of surgery.

We are always grateful to those who point out misprints or, more importantly, the occasional factual error. (A textbook lives through its readership.) Of course, we sincerely hope that this edition has none, but experience tells us that these are as difficult to eradicate as the last bacterium from chronically infected bone.

Despite these important changes, we hope you will agree that Bailey & Love retains the same feel as previous editions. Surgical practice is rapidly evolving, yet the underlying principles remain. We have endeavoured to blend the old with the new, and we hope we have been successful in this endeavour.

R.C.G. Russell Norman S. Williams Christopher J.K. Bulstrode 2004

# HISTORICAL FOOTNOTES

A popular characteristic of *Bailey and Love* has been the footnotes at the bottom of each page, highlighting an individual who has contributed directly or indirectly to surgery. With this edition, great care has been taken to revise the footnotes and to ensure accuracy. This task has been undertaken by **Dr Dickie Fairer**,

who has assiduously checked the old footnotes and contributed to the new notes. The editors wish to acknowledge his considerable contribution and to thank him for his scholarship and hard work in what proved to be a surprisingly difficult task. The editors hope that the reader finds the notes of interest.

# A NOTE ON SI UNITS

Please note that SI (Système International d'Unités) units have been used throughout this textbook, e.g. 'per hour' is h-1.

# SAYINGS OF THE GREAT

Both Hamilton Bailey and McNeill Love, when medical students, served as clerks to Sir Robert Hutchison, 1871–1960, who was Consulting Physician to the London Hospital and President of the Royal College of Physicians. They never tired of quoting his 'medical litany', which is appropriate for all clinicians and, perhaps especially, for those who are surgically minded.

From inability to leave well alone;
From too much zeal for what is new and
contempt for what is old;
From putting knowledge before wisdom,
science before art, cleverness before
common sense;

From treating patients as cases; and From making the cure of a disease more grievous than its endurance, Good Lord, deliver.

To which may be added:

The patient is the centre of the medical universe around which all our works revolve and towards which all our efforts trend.

J.B. Murphy, 1857–1916, Professor of Surgery, Northwestern University, Chicago, IL, USA

To study the phenomenon of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all.

> Sir William Osler, 1849–1919, Professor of Medicine, Oxford, UK

A knowledge of healthy and diseased actions is not less necessary to be understood than the principles of other sciences. By an acquaintance with principles we learn the cause of disease. Without this knowledge a man cannot be a surgeon. ... The last part of surgery, namely operations, is a reflection on the healing art; it is a tacit acknowledgement of the insufficiency of surgery. It is like an armed savage who attempts to get that by force which a civilised man would by stratagem.

John Hunter, 1728–1793, Surgeon, St George's Hospital, London, UK

In investigating Nature you will do well to bear ever in mind that in every question there is the truth, whatever our notions may be. This seems perhaps a very simple consideration; yet it is strange how often it seems to be disregarded. If we had nothing but pecuniary rewards and worldly honours to look to, our profession would not be one to be desired. But in its practice you will find it to be attended with peculiar privileges; second to none in intense interest and pure pleasures. It is our proud office to tend the fleshy tabernacle of the immortal spirit, and our path, if rightly followed, will be guided by unfettered truth and love unfeigned. In the pursuit of this noble and holy calling wish you all Godspeed.

Promoter's address, Graduation in Medicine, University of Edinburgh, August, 1876, by Lord Lister, the Founder of Modern Surgery

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# CLINICAL EXAMINATION IN MUSCULOSKELETAL DISORDERS

# LEARNING OBJECTIVES

- To understand the three major types of history, their functions and the different ways in which they are obtained
- To understand the three zones of abnormality that a history should address
- To know a simple system for examining the musculoskeletal system
- To learn the specific features to be sought in each area of the body

#### HISTORY

The history in trauma and orthopaedics is different from the rest of surgery (see Chapter 3) in that there are some specific areas which need to be covered. The three main areas are pain, dysfunction and deformity (summarised in Table 26.1). Table 26.2 shows a more general form of orthopaedic history that we use as a check-sheet when assessing a junior doctor's competence in taking an orthopaedic history.

# Pain

Patients should be asked to define in what way the pain troubles them. Their answer may give the clue as to how the pain can best be managed if it cannot be alleviated. For example, if it is pain at night that is preventing sleep, then a combination of pain-killers and sleeping tablets might offer the best option if no other option is available. If, however, the pain occurs in a joint on weight-bearing a splint might stabilise the joint and make the pain manageable.

# Disability

Loss of function may be a result of pain, stiffness, weakness, instability or even locking. In the first instance, the patient should be allowed to describe in his or her own words what the problem is, for example the inability to reach up to hang clothes on the washing line. This problem will later be translated into a clinical diagnosis, but at this stage it should be reported in the patient's own words.

# Deformity

Most patients want to look normal. Patients may want bunions corrected because they are unsightly, not because they are painful (although they may initially claim this). It is important to be clear about patients' real reasons for seeking treatment, and what it is they hope you will be able to do about it.

Table 26.1 Three areas in which orthopaedics and trauma concentrate on treatment

Pain	When, where, how bad? Does anything make it worse/better?
Dysfunction	What can you no longer do? Are there any ways round this?
Deformity	How much does it bother you? Why or when is this a problem?

# Table 26.2 A flow chart for taking an orthopaedic history

Skill	Details	
Introduction		
Put the patient at ease	Introduce yourself. Check the patient's name. Explain what you are doing and ensure that the patient agrees and is comfortable	
Setting agenda — patie	nt's problems and expectations	
Question	Ask open questions: 'Could you tell me what the problem is?'	
Listen	Listen actively and without interruption	
Record	Record the patient's problems and expectations, in his or her own words	
Making a diagnosis – o	onset and consequences	
Pain	Ask about onset — speed and cause of onset	
	Ask about consequences — duration, nature, site, radiation, type, constancy. Things that make it better or worse	
Disability	What are the effects on activities of daily living, i.e. work and recreation?	
Deformity	What is the cosmetic problem? When is it important?	
Fitness for surgery co	morbidity and control	
Identify	Problems with previous anaesthetics	
	Cardiac or circulatory — angina palpitations, myocardial infarctions	
	Respiratory — asthma bronchitis	
	Metabolic — diabetes, steroids	
Control	Evidence that identified comorbidity is controlled	
	Exclude acute untreated conditions such as infection	
Closure	Check for any further questions. Thank the patient	

# MUSCULOSKELETAL EXAMINATION

# System of musculoskeletal examination

Musculoskeletal examination works on a simple system originally designed by Apley. It consists of four-letter words divided into three sets of three. Table 26.3 is a check-sheet that we use when assessing a doctor's competence to perform an orthopaedic examination.

- The main structure is look, feel and move. Each of these is divided into three as well.
- Look and feel each separate into skin, soft tissue and bone.
- Move is divided into active, passive and resisted.

### Look

Make sure that you can see enough of the patient's body. This means exposing at least one joint above and one below the area in question. It also means exposing the opposite side. It is said by some that the human body was made bilaterally symmetrical to help orthopaedic surgeons distinguish abnormal from normal. Do not spurn such ready-made help.

It is not always necessary to lay the patient down in order to perform an orthopaedic examination. It may be easier if the patient remains standing, provided this is comfortable. In this position it is easier to look at the patient's back as well as his or her front. It is important to inspect all sides of the patient to make sure that no lesion is missed.

#### Skin

#### Look for:

- bruising and wounds evidence of recent injury;
- redness signs of inflammation:
- scars the archaeology of superficial injury;
- sweating loss of sweating may indicate nerve damage.

#### Soft tissues

Look now at the soft tissues. You are looking for:

Table 26.3 A comprehensive flow chart for performing an orthopaedic examination

Skill	Details		
Introduction	Find out where patient is tender Check for other problems/injuries		
Expose	Both limbs. One joint above and below		
Look	Skin — redness, scars, wounds Soft tissues — swelling/wasting Bone — deformity		
Feel	Skin — temperature, sensation, sweating Soft tissue — tender, effusion, pulses Bone — tenderness, osteophytes		
Move	Active — demonstrate to patient if necessary Passive — watch patient's face. Note limits from pain Resisted — power, stability, reflexes		
Closure	Check that the patient is comfortable		
Thank the patient			
Record	Neurovascular status, salient findings, and differences between the two sides		

Alan Apley | 1914–1996. Director of Orthopaedic Surgery, St Thomas's Hospital, London, England.

- swelling a cardinal sign of injury and inflammation;
- wasting signs of disuse and nerve damage, the archaeology of deep injury.

#### Bone

Finally look at the bones (shape of the skeleton). Look for:

deformity – unusual angles or joints held in unusual positions.

You have now looked at skin, soft tissue and bone. Summarise these in your mind and make a record of what you have found.

# Feel

#### Skin

Temperature Stroke the patient's limbs with the back of your hand; it is more sensitive than the front. Use the patient's other side for comparison. Warmth may indicate inflammation. A cold limb may indicate nerve or vascular damage.

Sensation Stroke first the normal limb then the other limb lightly. Ask if the touch on the two limbs feels the same. By comparing the two sides the patient should be able to detect any change in sensation, however slight.

#### Soft tierre

When you feel the soft tissues, you must be very careful to avoid hurting the patient. The best way to do this is to place your hands on the area under examination, then look up and watch the patient's face as you palpate.

Feel for:

- Tendemess. As you press with your fingers try to describe to yourself the actual anatomical structure that you are palpating: subcutaneous fat, bursae, muscle bodies, tendons, nerves, arteries and ligaments.
- Lumps and effusions. Each time you feel an abnormality under the skin you should be able to run through a checklist of features of a lump. A simple system is shown in Table 26.4.
- Distal circulation. Feel for peripheral pulses and check capillary filling. When checking pulses, take the patient's pulse elsewhere at the same time. This should ensure that it is the patient's pulse you are feeling, not your own!

# Bone (bone outlines and joint margins)

Feel the bone and joint margins gently for areas of tenderness, steps and lumps. Again, try to work out what anatomical structure your fingers are touching as you palpate.

Review your findings. Try to decide what structures are tender, what structures are swollen, wasted or displaced, and whether the circulation and sensation to the distal limb is normal. If not, where is the likely damage?

#### Move

Once again there are three phases of the examination, but this time they are active, passive and stability.

#### Active

The patient should move his or her own joints within the limits of pain. Use simple language to explain what you want the patient to do, and if necessary demonstrate the movement.